



# Pizza Math!



## Welcome, Pizza Chef!

Today you are going to open your very own pizza kitchen! You will use REAL math skills to follow a recipe, double it for more pizzas, and figure out fractions with toppings.

This recipe is based on this one here. Check there for the baking instructions!

<https://www.recipetineats.com/pizza-dough-recipe/>

Ingredient	Amount
Flour	4 cups
Warm water	1 $\frac{1}{3}$ cup
Yeast (rapid rise or instant)	2 teaspoons
Olive oil	4 tablespoon
Salt	2 $\frac{1}{2}$ teaspoon
Sugar	4 teaspoon
Pizza sauce	$\frac{1}{4}$ cup
Mozzarella cheese	1 $\frac{1}{3}$ cup (shredded)

# Part 1 – Level 1 Double the Dough!

Our family actually needs twice as much dough as this recipe calls for! That means we need to DOUBLE the recipe. Double means two times as much. If the recipe says 1 cup, we need 2 cups. If it says 2 cups, we need 4 cups!

<b>Ingredient</b>	<b>Amount</b>	<b>Doubled</b>
Flour	4 cups	
Warm water	1 1/3 cup	
Yeast (rapid rise or instant)	2 teaspoons	
Olive oil	4 tablespoon	
Salt	2 1/2 teaspoon	
Sugar	4 teaspoon	
Pizza sauce	1/4 cup	
Mozzarella cheese	1 1/3 cup (shredded)	

**Draw it if you need to!**



# Part 1 - Level 1 Think About It

The recipe uses  $\frac{1}{2}$  cup of pizza sauce. If you double it, how much sauce do you need?

If each pizza uses 1 cup of cheese, how many cups do you need for 4 pizzas?

**CHALLENGE:** There are 24 kids coming to a birthday party. Each pizza has 8 slices. Do 2 pizzas give everyone a slice?  
Show your thinking!

# Part 1 - Level 2 Triple the Dough!

Your pizza business is booming! You need to make different amounts for different events. Use the recipe to fill in the table below.

Ingredient	Amount	Doubled	Triple
Flour	4 cups		
Warm water	1 1/3 cup		
Yeast (rapid rise or instant)	2 teaspoons		
Olive oil	4 tablespoon		
Salt	2 1/2 teaspoon		
Sugar	4 teaspoon		
Pizza sauce	1/4 cup		
Mozzarella	1 1/3 cup		

Draw it if you need to!



# Part 1 - Level 2 Think About It

You have 5 cups of flour. The recipe uses 2 cups per pizza. How many full pizzas can you make? How much flour is left over?

You need  $\frac{3}{4}$  cup of water for 1 pizza. How much water do you need for 3 pizzas? Write your answer as a fraction and as a mixed number if needed.

**CHALLENGE:** You want to make  $\frac{1}{2}$  a pizza (you are not very hungry!). How much of each ingredient do you need? Write the amounts for flour and water.

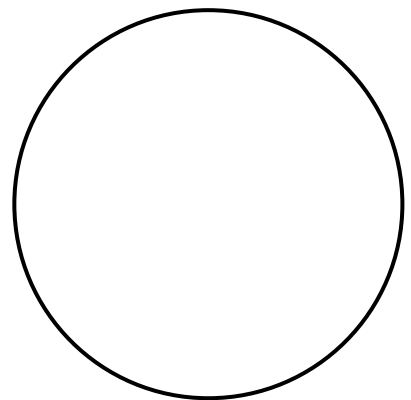
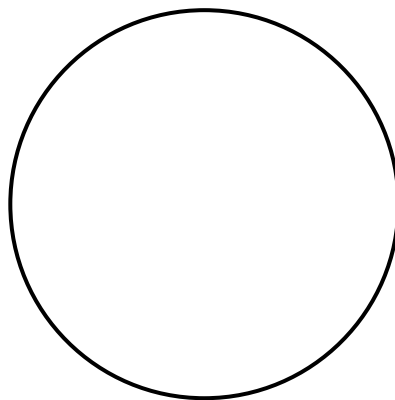
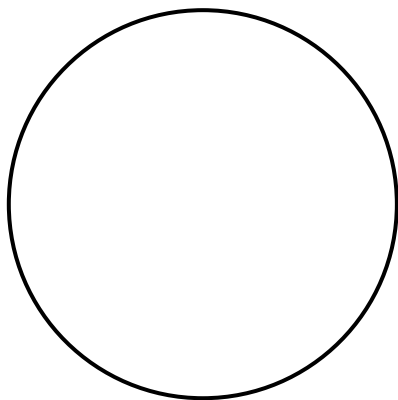
# Part 2 - Level 1 Fraction Toppings!

In this part, you will be a pizza artist! Use fractions to put toppings on your pizzas.  
Remember: A fraction tells us how many equal parts of the whole we are using.

## Activity A - Halves ( $\frac{1}{2}$ and $\frac{1}{2}$ )

This pizza is cut into 2 equal parts (halves). Color and decorate each half with a different topping based on rolling a d6.

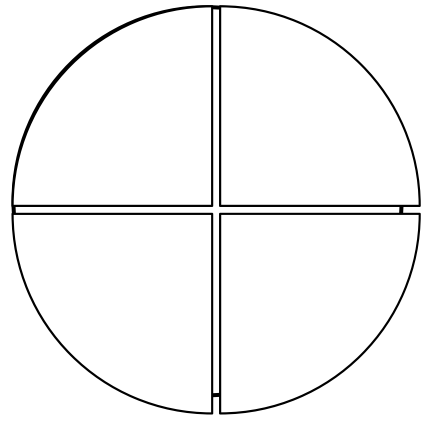
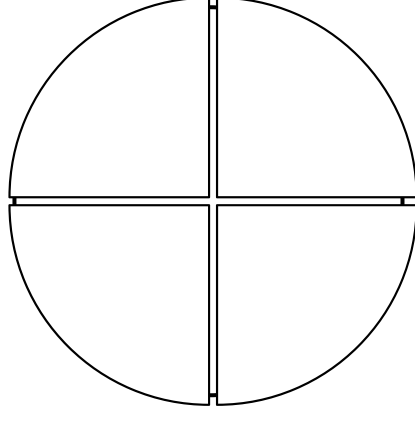
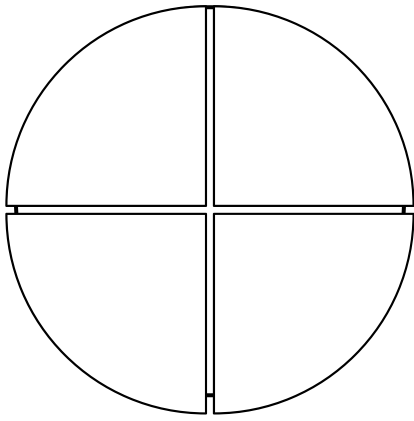
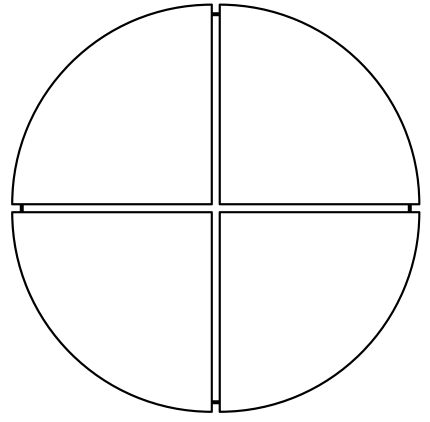
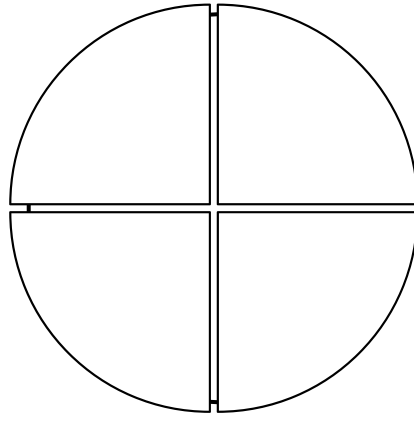
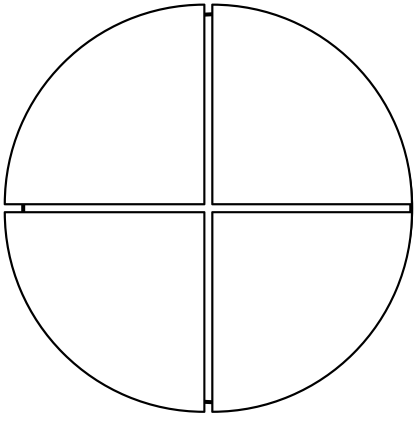
Dice Roll	Ingredient	Color it
1	Cheese Only	Orange
2	Pepperoni	Red
3	Sausage	Blue
4	Mushroom	Brown
5	Green Pepper	Green
6	You Decide!	



## Activity B - Halves and Quarters (1/2 and 1/4)

- **Setup:** Start with 6 empty pizza crusts.
- **Determine Size (Coin Flip):** Flip a coin to see how much space the next ingredient takes up.
  - Heads: 1/4 of a pizza.
  - Tails: 1/2 of a pizza.
- **Determine Topping (D6 Roll):** Roll a 6-sided die. Consult the Topping Key (e.g., 1=cheese, 2=pepperoni to see what you are adding.
- **Placement:** Add the topping to any available spot on any pizza. If an ingredient is too large to fit in the remaining space of a pizza, you must start it on a new one.
- **Winning Condition:** The game ends when all pizza crusts are completely covered.

Dice Roll	Ingredient	Color it
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# Part 2 - Level 1 Think About It

How many quarters make up a half? What about a whole?

Are  $\frac{2}{4}$  and  $\frac{1}{2}$  the same amount? Show me!

CHALLENGE: You have 8 friends coming over who will each eat a quarter of a pizza. How many pizzas will you need to make?

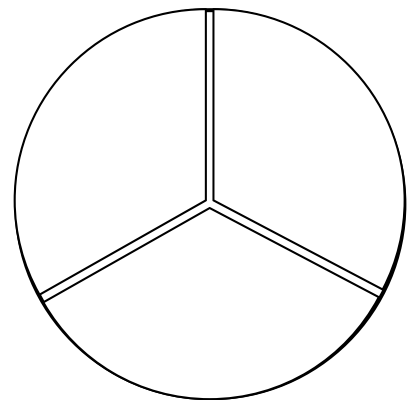
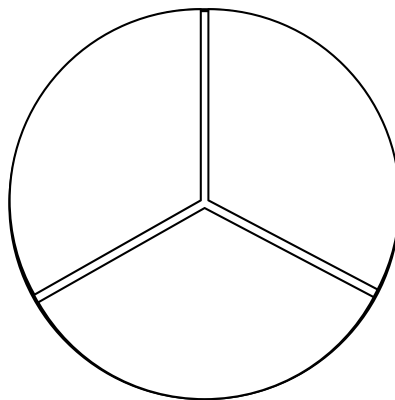
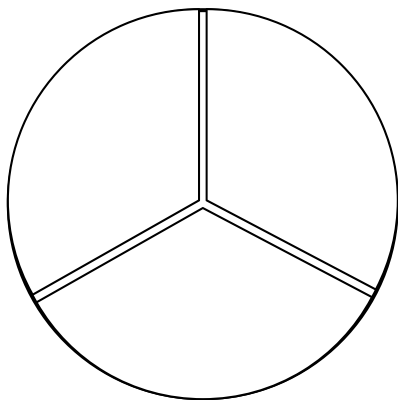
# Part 2 - Level 3 Fraction Toppings!

In this part, you will be a pizza artist! Use fractions to put toppings on your pizzas.  
Remember: A fraction tells us how many equal parts of the whole we are using.

## Activity A - Thirds (1/3)

This pizza is cut into 3 equal parts (thirds). Color and decorate each half with a different topping based on rolling a d6.

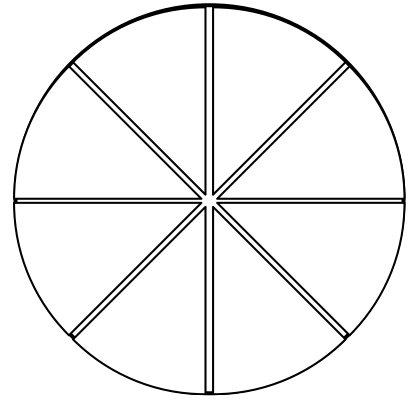
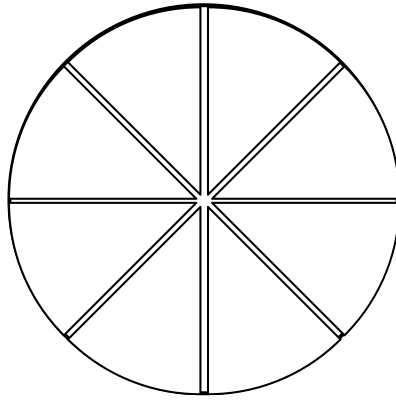
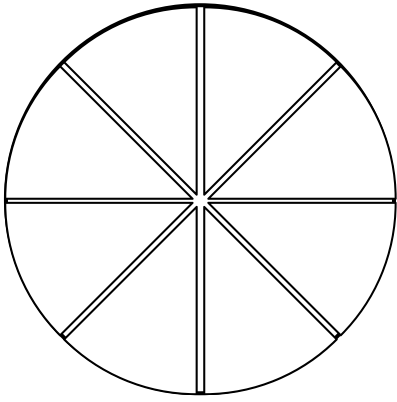
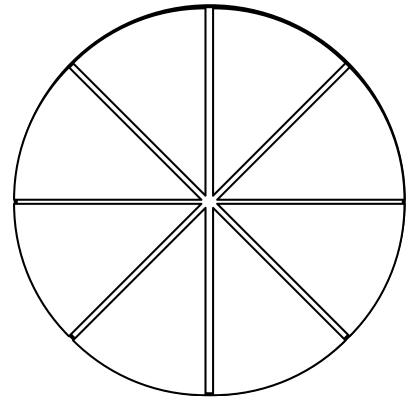
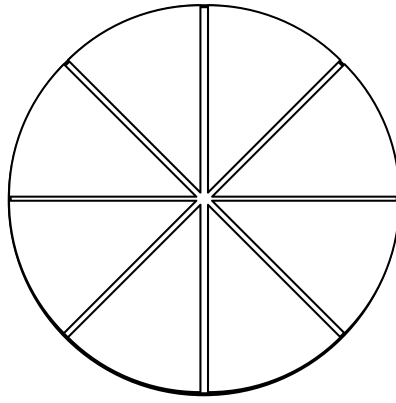
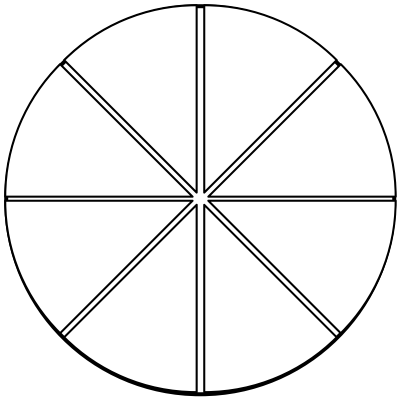
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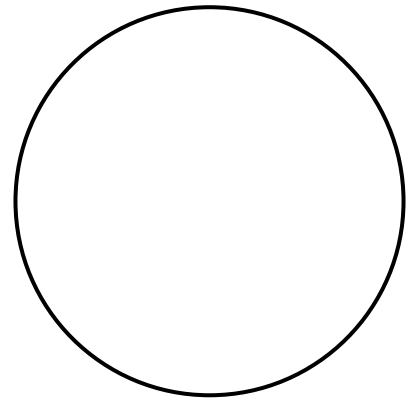
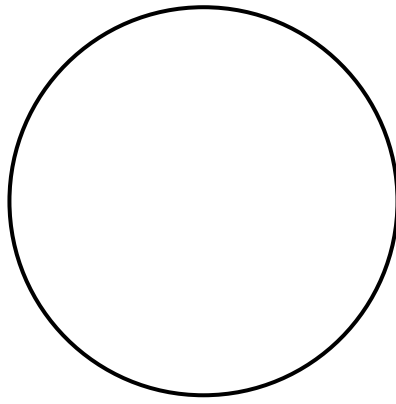
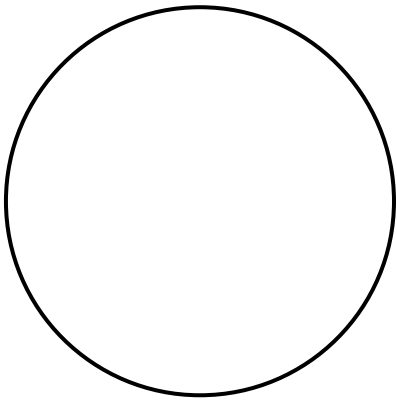
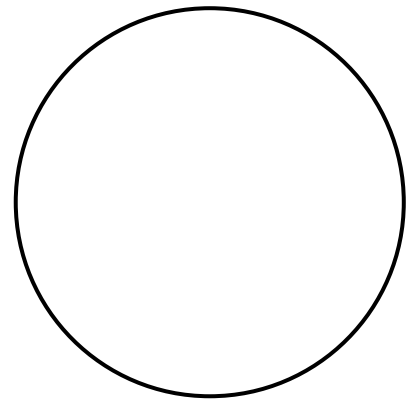
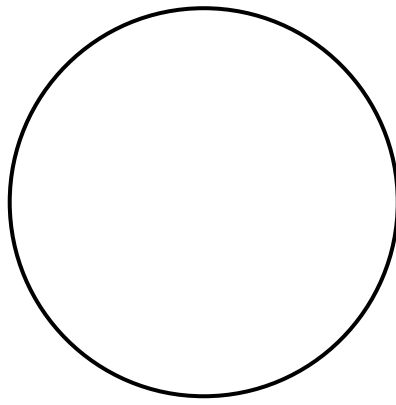
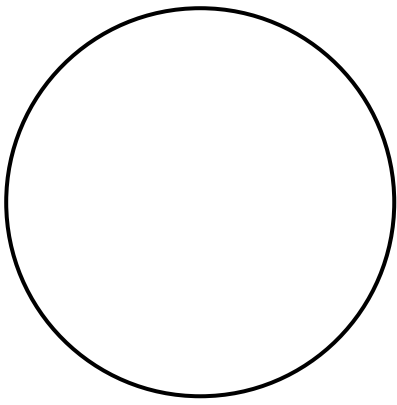


## Activity B - Halves and Quarters (1/2 and 1/4)

- **Setup:** Start with 6 empty pizza crusts.
- **Determine Size (Roll D8):** Roll a D8 to determine how much of an ingredient you need
  - 1 = 1/8 of a pizza.
  - 2 = 2/8 of a pizza.
  - 3 = 3/8 of a pizza. (etc etc)
- **Determine Topping (D6 Roll):** Roll a 6-sided die. Consult the Topping Key (e.g., 1=cheese, 2=pepperoni to see what you are adding.
- **Placement:** Add the topping to any available spot on any pizza. If an ingredient is too large to fit in the remaining space of a pizza, you must start it on a new one.
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4	Mushroom	Brown
5	Green Pepper	Green
6	You Decide!	





# Part 2 - Level 2 Think About It

Is  $\frac{3}{8}$  more or less than  $\frac{1}{2}$ ? How do you know?

Are  $\frac{6}{8}$  and  $\frac{3}{4}$  the same amount? Show me!

**CHALLENGE:** You have 50 friends coming over who will each eat a quarter of a pizza. How many pizzas will you need to get?